

▪ SEMESTER:- II

▪ COURSE NO.:- FIM-122

▪ COURSE TITLE:- FOOD MICROBIOLOGY

▪ CREDIT:- 3(2+1)

➤ THEORY

NO. OF UNITS	TOPICS	NO. OF LECTURES
1	<i>Microbial spoilage of foods</i>	2
2	<i>Chemical changes caused by microorganisms</i>	1
3	<i>Principles of food preservation</i>	1
4	<i>Control of microorganisms by use of low and high temperature</i>	4
5	<i>Asepsis, water activity , drying, preservatives, radiation and pressure for control of microorganisms</i>	4
6	<i>Microbiology of milk and milk products</i> <i>Sources of contamination, spoilage and prevention</i>	2
7	<i>Microbiology of fruits and vegetables</i> <i>Sources of contamination, spoilage and prevention</i>	2
8	<i>Microbiology of cereal and cereal products.</i> <i>Sources of contamination, spoilage and prevention</i>	2
9	<i>Microbiology of meat and meat products.</i> <i>Sources of contamination, spoilage and prevention</i>	2
10	<i>Microbiology of fish and other sea foods</i> <i>Sources of contamination, spoilage and prevention</i>	2
11	<i>Microbiology of poultry and eggs</i> <i>Sources of contamination, spoilage and prevention</i>	2
12	<i>Microbiology of sugar and sugar products</i> <i>Sources of contamination, spoilage and prevention</i>	2
13	<i>Microbiology of salts and spices</i> <i>Sources of contamination, spoilage and prevention</i>	2
14	<i>Microbiology of canned foods</i> <i>Sources of contamination, spoilage and prevention</i>	2
	<b>TOTAL</b>	<b>30</b>

➤ PRACTICALS

NO. OF UNITS	TOPICS	NO. OF EXPT.
1	<i>Isolation of molds from foods</i>	2
2	<i>Microbial examination of cereal and cereal products</i> <i>Identification, isolation and confirmation of R. nigricans</i>	2
3	<i>Microbial examination of vegetable and fruits</i> <i>Identification, isolation and confirmation of R. nigricans / Erwinia carotovora</i>	2
4	<i>Microbial examination of meat and meat products</i> <i>Identification, isolation and confirmation of Coliform bacteria/P.fluorescens</i>	2
5	<i>Microbial examination of fish and other sea foods</i> <i>Identification, isolation and confirmation of Proteu.spp</i>	2
6	<i>Microbial examination of Eggs and poultry</i> <i>Identification, isolation and confirmation of Pseudomonas fluorescens</i>	2
7	<i>Microbial examination of milk and milk products</i> <i>Identification, isolation and confirmation of S.thermophilus</i>	1
8	<i>Microbial examination of sugar, salts and spices</i> <i>Identification, isolation and confirmation of L.messenteroides/L.dextranicum</i>	1
9	<i>Thermal Death Time determination</i>	1
	<b>TOTAL</b>	<b>15</b>

➤ Reference Books:

- *Food Microbiology* *W.C. Frazier and D.C. Westhoff*
- *Modern Food Microbiology* *James M. Jay.*
- *Basic Food Microbiology* *G.J. Banwart.*
- *Applied Microbiology* *Singh B. D., Nallari P., Kavikishore P. B and Singh R. P.*
- *Food Microbiology (vol. I & II)* *Adams M.R. and Moss M.O.*
- *Food Microbiology and Lab Practice* *Bell*